

Case 2907

***Sphaerocera* Latreille, 1804 and *Borophaga* Enderlein, 1924 (Insecta, Diptera): proposed conservation; *Sphaerocera curvipes* Latreille, 1805 and *Phora flavimana* Meigen, 1830: proposed conservation of the specific names**

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Abstract. The purpose of this application is to conserve the name *Sphaerocera* Latreille, 1804 and that of its type species *Sphaerocera curvipes* Latreille, 1805 (family SPHAEROCERIDAE Macquart, 1835), together with the name *Borophaga* Enderlein, 1924 and that of its type species *Phora flavimana* Meigen, 1830 (family PHORIDAE Curtis, 1833). The name *Sphaerocera* has for many years been accepted as valid for a group of acalyptrate flies. A specimen of *Musca subsultans* Linnaeus, 1767 (the type species of *Borborus* Meigen, 1803) which has been treated as the holotype of *M. subsultans* has been identified as an example of *P. flavimana*. Recognition of the identity of this specimen would render the name *Borophaga*, which is in use for a phorid genus, a junior subjective synonym of *Borborus*, a name which was long used in the sense of *Sphaerocera*. Suppression of *Borborus* and the specific name of *M. subsultans* is proposed.

1. Meigen (1800, p. 31) proposed the name *Cypsela* for a group of flies with an expanded first hind tarsomere, the type of which was designated as *Musca subsultans* Linnaeus, 1767 (p. 993) by Coquillett (1910, p. 530). Meigen's (1800) work, in which the name appeared, was suppressed by the Commission in Opinion 678 (October 1963).

2. Meigen (1803, p. 276) proposed the name *Borborus* for the same group of flies. The type of *Borborus* was designated by Curtis (1833, p. 469) as *Musca subsultans*. Duda (1938, p. 14) proposed the designation of *Borborus ater* Meigen, 1830 (p. 203) as a new type species for *Borborus* because the identity of the type specimen of *subsultans* was uncertain. This has led some authors to cite incorrectly *B. ater* as the type species of *Borborus*.

3. The name *Borborus* was long used for a genus of acalyptrate flies (family BORBORIDAE Newman, 1834, as *Borborites*), characterized by an expanded first hind tarsomere. This use continued until Richards (1930, p. 263), who considered that the valid name for the genus *Borborus* was *Sphaerocera* Latreille, 1804 (p. 197). Richards believed that workers should 'date all genera from the time species were first

included'. Meigen did not include any species in *Borborus* until 1830 and Richards therefore believed that *Borborus* was a junior synonym of *Sphaerocera*. The type species of *Sphaerocera* is *Sphaerocera curvipes* Latreille, 1805 (p. 394) by subsequent monotypy.

4. Haliday (1851, p. 144) suggested that the supposed type specimen of *M. subsultans*, in the Linnean Society collections in London, belonged in the family PHORIDAE Curtis, 1833. This was confirmed by Richards (1930, p. 263), who suggested that the original type specimen was probably lost, that a new specimen had been erroneously labelled as *M. subsultans*, and that this specimen belonged to the species *Phora flavimana* Meigen, 1830 (p. 213). Despite this, Richards retained the accepted meaning of the name *subsultans* Linnaeus, 1767 as 'it is improbable that all the early authors should have made so serious a misidentification. I therefore retain the name *Sphaerocera subsultans* Linné ... [for this] very well known fly'. Richards also noted that *Sphaerocera curvipes* Latreille, 1805 had been synonymized with *Musca subsultans* Fabricius, 1775 but that 'the name *Musca subsultans* dates back to Linné (1767). Fabricius (*loc. cit.*) merely copies Linné's diagnosis with a few omissions'. Despite Richards's use of the name *M. subsultans* subsequent authors (e.g. Duda, 1938) have favored *S. curvipes* as the name for the species because of the uncertainty about the typification of *subsultans*.

5. Disney (1982, p. 115) also examined the Linnean Society specimen and confirmed that it was indeed a phorid. He placed *subsultans* (as defined by this specimen) in the genus *Borophaga* Enderlein, 1924 (p. 277), departing from the long accepted interpretation of *subsultans*, despite the fact that the species is the type of *Borborus* Meigen, 1803. His placement of *subsultans* in the PHORIDAE rendered *Borophaga* Enderlein, 1924 (type species *Phora flavimana* Meigen, 1830 by original designation) a junior synonym of *Borborus* Meigen, 1803. The name *Borophaga* is widely used in the recent literature (e.g. Borgmeier, 1963; Disney, 1983; Brown, 1992; a further list of seven representative works is held by the Commission Secretariat).

6. Since Richards (1930), the name *Sphaerocera* Latreille, 1804 has become widely used in the literature in place of the *Borborus* of earlier authors (e.g. Kim, 1968; Marshall & Richards, 1987; Pitkin, 1988; a further list of seven representative works is held by the Commission Secretariat). The genus is the type of the family group SPHAEROCERIDAE. Since *Borborus* has become disused and the meaning of its type species *Musca subsultans* has been uncertain the best course of action would be to suppress both *Borborus* Meigen, 1803 and *subsultans* Linnaeus, 1767 thereby maintaining stability of usage of names in the SPHAEROCERIDAE and the PHORIDAE, i.e. *Sphaerocera*, *Borophaga* and *Phora flavimana*. Following this, there would be no further need for a debate over the typification of *subsultans*. Suppression of *Borborus* would also render invalid the family name BORBORIDAE Newman, 1834 and would conserve the widely used name SPHAEROCERIDAE Macquart, 1835.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) the generic name *Borborus* Meigen, 1803;
 - (b) the specific name *subsultans* Linnaeus, 1767, as published in the binomen *Musca subsultans*;

- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Sphaerocera* Latreille, 1804 (gender: feminine), type species by subsequent monotypy *Sphaerocera curvipes* Latreille, 1805;
 - (b) *Borophaga* Enderlein, 1924 (gender: feminine), type species by original designation *Phora flavimana* Meigen, 1830;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *curvipes* Latreille, 1805, as published in the binomen *Sphaerocera curvipes* (specific name of the type species of *Sphaerocera* Latreille, 1804);
 - (b) *flavimana* Meigen, 1830, as published in the binomen *Phora flavimana* (specific name of the type species of *Borophaga* Enderlein, 1924);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Borborus* Meigen, 1803, as suppressed in (1)(a) above;
- (5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *subsultans* Linnaeus, 1767, as published in the binomen *Musca subsultans* and as suppressed in (1)(b) above.

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